

Docket No. AUS920010470US1

**CLAIMS:**

What is claimed is:

1. A method for determining parameters needed to  
5 communicate with a remote node in a computer network, the  
method comprising:  
    compiling a queue-pair-number map, wherein the map  
    associates unique queue pair numbers with services hosted by  
    network nodes;  
10      receiving a service request from a client;  
    looking up the queue pair number associated to the  
    requested service; and  
    replying to the client, wherein the reply includes:  
        the address of the node hosting the requested  
15 service; and  
        the queue pair number associated with the  
        requested service.
2. The method according to claim 1, further comprising  
20 registering the network nodes with a central server, wherein  
the central server contains the queue-pair-number map.
3. The method according to claim 1, further comprising  
25 initiating the network nodes with the queue-pair-number map.
4. The method according to claim 1, further comprising:  
    receiving a second service request from the client,  
    wherein the second request is addressed to the queue pair  
    number included in the first reply;  
30      associating a new queue pair number with a new dynamic  
    instance of the requested service; and

Docket No. AUS920010470US1

returning a second reply to the client, wherein the second reply includes the new queue pair number.

5. A method for determining parameters needed to  
5 communicate with a remote node in a computer network, the method comprising:

associating a service hosted by the node with a  
well-known queue pair number, wherein the well-known queue  
pair number corresponds to at least one well-known port in  
10 the node;

receiving a service request from a client, wherein the request is addressed to the well-known queue pair number;  
and

replying to the client, wherein the reply contains  
15 attributes necessary for communication with the requested service.

6. The method according to claim 5, wherein the well-known queue pair number corresponds to all well-known ports in the  
20 node.

7. The method according to claim 5, wherein the well-known queue pair number corresponds to well-known ports which are specified as the least used well-known ports in the node.  
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8. The method according to claim 5, wherein the reply returned to the client includes a new queue pair number which differs from the well-known queue pair number, wherein the new queue pair number is used by the client for  
30 subsequent communication with the service.

Docket No. AUS920010470US1

9. A computer program product in a computer readable medium for use in a data processing system, for determining parameters needed to communicate with a remote node in a computer network, the computer program product comprising:

5 instructions for compiling a queue-pair-number map, wherein the map associates unique queue pair numbers with services hosted by network nodes;

instructions for receiving a service request from a client;

10 instructions for looking up the queue pair number associated to the requested service; and

instructions for replying to the client, wherein the reply includes:

15 the address of the node hosting the requested service; and

the queue pair number associated with the requested service.

10. The computer program product according to claim 9, further comprising instructions for registering the network nodes with a central server, wherein the central server contains the queue-pair-number map.

11. The computer program product according to claim 9, further comprising instructions for initiating the network nodes with the queue-pair-number map.

12. The computer program product according to claim 9, further comprising:

30 instructions for receiving a second service request from the client, wherein the second request is addressed to the queue pair number included in the first reply;

Docket No. AUS920010470US1

instructions for associating a new queue pair number  
with a new dynamic instance of the requested service; and  
instructions for returning a second reply to the  
client, wherein the second reply includes the new queue pair  
5 number.

13. A computer program product in a computer readable  
medium for use in a data processing system, for determining  
parameters needed to communicate with a remote node in a  
10 computer network, the computer program product comprising:

instructions for associating a service hosted by the  
node with a well-known queue pair number, wherein the  
well-known queue pair number corresponds to at least one  
well-known port in the node;

15 instructions for receiving a service request from a  
client, wherein the request is addressed to the well-known  
queue pair number; and

instructions for replying to the client, wherein the  
reply contains attributes necessary for communication with  
20 the requested service.

14. The computer program product according to claim 13,  
wherein the well-known queue pair number corresponds to all  
well-known ports in the node.

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15. The computer program product according to claim 13,  
wherein the well-known queue pair number corresponds to  
well-known ports which are specified as the least used  
well-known ports in the node.

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16. The computer program product according to claim 13,  
wherein the reply returned to the client includes a new

Docket No. AUS920010470US1

queue pair number which differs from the well-known queue pair number, wherein the new queue pair number is used by the client for subsequent communication with the service.

- 5 17. A system for determining parameters needed to communicate with a remote node in a computer network, the system comprising:

10 a compiler which compiles a queue-pair-number map, wherein the map associates unique queue pair numbers with services hosted by network nodes;

a receiver which receives a service request from a client;

a look-up component which looks up the queue pair number mapped to the requested service; and

- 15 a response component which replies to the client, wherein the reply includes:

the address of the node hosting the requested service; and

- 20 the queue pair number associated with the requested service.

18. The system according to claim 17, further comprising:

25 a second receiver which receives a second service request from the client, wherein the second request is addressed to the queue pair number included in the first reply;

a processing component which associates a new queue pair number with a new dynamic instance of the requested service; and

- 30 a second response component which sends a second reply to the client, wherein the second reply includes the new queue pair number.
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19. A system for determining parameters needed to communicate with a remote node in a computer network, the system comprising:

a receiver which receives a service request from a client, wherein the request is addressed to the well-known queue pair number; and

communication with the requested service.